Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

**End Semester Examination – April/May – 2017**

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| **Code :** | **14ME2043** | **Duration :** | **3hrs** |
| **Sub. Name :** | **INDUSTRIAL ENGINEERING** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

|  |  |  |  |  |
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| Q. No. | Sub Div. | Questions | Course  Outcome | Marks |
| 1. | a. | Define Industrial Engineering. | CO1 | 1 |
| b. | What are the components of work study? | CO1 | 1 |
| c. | Name any two method study tools. | CO1 | 2 |
| d. | Distiguish work content and ineffective time. | CO1 | 2 |
| e. | Explain the detailed procedure to conduct time study. | CO1 | 14 |
| (OR) | | | | |
| 2. | a. | How is productivity measured ? | CO1 | 1 |
| b. | List the various partial productivity indices. | CO1 | 1 |
| c. | Differentiate production and productivity. | CO1 | 2 |
| d. | Whts is ‘productivity defator’? | CO1 | 2 |
| e. | Expound the various factors influencing productivity. | CO1 | 14 |
| 3. | a. | Expand the acronyms with respect to inventory i) ABC ii) VED. | CO2 | 1 |
|  | b. | Define re-ordrer point in inventory control. | CO2 | 1 |
|  | c. | Differentiate Material Requirement Planning and Manufacturing Resource Planning. | CO2 | 2 |
|  | d. | What are the outcomes of capacity planning? | CO2 | 2 |
|  | e. | Explain the salient features of master production schedule. | CO2 | 14 |
| (OR) | | | | |
| 4. | a. | Distinguish between ordering cost and holding cost. | CO2 | 1 |
|  | b. | Write a note on the term ‘ Economic ordering Quantity (EOQ)’. | CO2 | 1 |
|  | c. | Whas is buffer stock? | CO2 | 2 |
|  | d. | Define WIP inventory. | CO2 | 2 |
|  | e. | Explain the various inventory control techniques with suitable exambles. | CO2 | 14 |
| 5. | a. | Define failure. | CO2 | 1 |
|  | b. | Distinguish between failure and failure rate. | CO2 | 1 |
|  | c. | How is availability computed. | CO2 | 2 |
|  | d. | Differentate between variable and attribute control charts. | CO2 | 2 |
|  | e. | Discusss process capability analysis with neat diagrams and suitable exambles. | CO2 | 14 |
| (OR) | | | | |
| 6. | a. | Define Reliability. | CO2 | 1 |
|  | b. | How is ailability measured? | CO2 | 1 |
|  | c. | How to achieve reliability improvement. | CO2 | 2 |
|  | d. | Differentiate between MTBF and MTTR. | CO2 | 2 |
|  | e. | Find the reliability of the following system  R(B)= 0.8  R(A)= 0.9  R(D)=0.7  R(C)= 0.9 | CO2 | 14 |
| 7. | a. | Define travel chart. | CO 3 | 1 |
|  | b. | What is the advantage of flow charts. | CO 3 | 1 |
|  | c. | Write a note on Group Technology. | CO 3 | 2 |
|  | d. | Prescribe suitable layout for ship building. | CO 3 | 2 |
|  | e. | Explain the salient features of product and process layout and list their advantages and limitations. | CO 3 | 14 |
| (OR) | | | | |
| 8. | a. | SWOT stans for \_\_\_\_\_\_\_\_\_\_\_\_\_. | CO 3 | 1 |
|  | b. | List any two benefis of CAPP. | CO 3 | 1 |
|  | c. | Write a note on leverage of IT in production management. | CO 3 | 2 |
|  | d. | State the concept of ‘ management by objective’. | CO 3 | 2 |
|  | e. | Enumerate the role of supply chain managemet in production industries. | CO 3 | 14 |
|  | | **Compulsory**: |  |  |
| 9. | a. | Distinguish between strength and opportunity. | CO 3 | 1 |
|  | b. | What is derating of performance. | CO 3 | 1 |
|  | c. | Define BPR. | CO 3 | 2 |
|  | d. | Lisr any two benefits of supply chain management. | CO 3 | 2 |
|  | e. | Explain the process of business process reengineering with suitable example. | CO 3 | 14 |

ALL THE BEST